

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION**

73-720 Fred Waring Drive, Suite 100, Palm Desert, CA 92260
Phone (760) 346-7491 • Fax (760) 341-6820
<http://www.waterboards.ca.gov>

**SPECIAL BOARD ORDER NO. R7-2008-0027
AMENDING WASTE DISCHARGE REQUIREMENTS ORDER NO. R7-2005-0021
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT NO. CA0104523 FOR THE
CITY OF BRAWLEY WASTEWATER TREATMENT PLANT
IMPERIAL COUNTY**

The California Regional Water Quality Control Board, Colorado River Basin Region (hereinafter Regional Water Board), finds:

A. Background.

1. On June 29, 2005, the Regional Water Board adopted Board Order No. R7-2005-0021, NPDES Permit No. CA0104523, prescribing Waste Discharge Requirements for the City of Brawley (herein after Discharger) Wastewater Treatment Plant (WWTP) for the discharge of 5.9 million gallons per day (MGD) of equivalent to secondary treated wastewater to the New River, a water of the United States. The New River conveys the effluent to the Salton Sea. Board Order No. R7-2005-0021 will expire on June 29, 2010.
2. The California Toxics Rule (CTR) (40 CFR 131.38) and the State Water Resource Control Board's (State Water Board) Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Plan or SIP) establish specific criteria for freshwater and saltwater. When the salinity of receiving water is between 1 and 10 parts per thousand, such as is the case for the New River, the CTR and SIP provide for the Regional Water Board to prescribe in a permit the more stringent of the two criteria. Based on the foregoing, Board Order No. R7-2005-0021, as adopted by the Regional Water Board in 2005, includes interim and final effluent limits for copper, free cyanide, lead, selenium and zinc that were developed based on saltwater and freshwater criteria. The final effluent limits for copper, lead, and zinc are based on saltwater criteria, which is more stringent than freshwater criteria for these pollutants.
3. The Discharger conducted a Biological Assessment at the location of the discharge. The areas of observation were approximately 200 meters upstream and 200 meters downstream of the discharge. The objective of the Biological Assessment was to determine whether water, plant life, and aquatic life at the discharge location are more typical of a saltwater or a freshwater environment.
4. On November 14, 2006 the Discharger submitted the results of the Biological Assessment to the U.S. Environmental Protection Agency (USEPA) requesting approval to use alternative freshwater criteria at the location of the discharge. This assessment determined that the applicable reach of the New River is characterized as freshwater; therefore, saltwater aquatic life criteria are not applicable for this reach of the New River.
5. USEPA reviewed the Biological Assessment prepared by the Discharger. On February 6, 2007, USEPA issued a tentative approval of the findings in the Discharger's Biological Assessment and the application of water quality criteria for the protection of freshwater aquatic life.

6. Board Order No. R7-2005-0021 may be modified, rescinded and reissued, for cause. The filing of a request by the Discharger for a Board Order modification, rescission and reissuance, or a notification of planned changes or anticipated noncompliance does not stay any Board Order condition. Causes for modification include, but are not limited to, the promulgation of new regulations, modification of land application plans, or modification in sludge use or disposal practices, or adoption of new regulations by the State Water Board or the Regional Water Board, including revisions to the Basin Plan.
7. This Special Board Order revises Board Order No. R7-2005-0021 to designate the City of Brawley's discharge location at the New River as a freshwater environment and establish interim and final effluent limits based on CTR and SIP freshwater criteria for the discharge.
8. In accordance with section 1.3 of the SIP, the Regional Water Board conducted a Reasonable Potential Analysis (RPA) for each priority pollutant with an applicable criterion or objective to determine if a water quality-based effluent limitation (WQBEL) was required in the Order. For the existing Board Order, R7-2005-0021, the discharge demonstrates a reasonable potential to cause or contribute to an excursion above the applicable water quality standards for copper, free cyanide, lead, selenium and zinc. Based on the exclusion of saltwater criteria, the discharge did not demonstrate a reasonable potential to cause or contribute to an excursion above the applicable water quality standards for zinc; therefore, the effluent limitations for zinc have been discontinued.
9. Pursuant to 40 CFR 124.10(b), a thirty (30) day public notice and comment period of USEPA's proposed tentative approval of the Biological Assessment and this revised Board Order is required prior to their becoming final. These public participation requirements are necessary to provide stakeholders potentially affected by this action with an opportunity to object to or comment on the proposed tentative approval and revised Board Order.
10. Pursuant to 40 CFR 124.10(b) and California Water Code (CWC) Section 13167.5, the Regional Water Board published Public Notice No. 7-08-08 for this proposed Board Order on April 9, 2008.
11. The 2006 USEPA Clean Water Act (CWA) Section 303(d) List identifies the New River as impaired by 1,2,4-trimethylbenzene, chlordane, chloroform, chlorpyrifos, DDT, diazinon, dieldrin, mercury, meta-para xylenes, nutrients, dissolved oxygen, o-xylenes, PCBs, p-cymene, p-dichlorobenzene, pesticides, selenium, toluene, toxaphene, toxicity, copper and trash. A pathogen and sedimentation/siltation Total Maximum Daily Loads (TMDLs) have been approved by USEPA for the New River. The pathogen and sedimentation/siltation TMDLs established waste load allocations (WLAs) for fecal coliform, E. Coli, enterococci and sediment. The existing E. Coli and total suspended solids effluent limitations in Board Order No. R7-2005-0021 comply with the WLAs established in the New River pathogen and sedimentation/siltation TMDLs. Effluent limitations for fecal coliform and enterococci, consistent with the WLAs established in the New River pathogen TMDL, have been included in this Special Order to amend the Final Effluent Limitations of Board Order No. R7-2005-0021. Further, there are two TMDLs under development for dissolved oxygen and VOCs for the New River. A Trash TMDL for the New River has been approved by the Regional Water Board and State Water Board and is in the process of being approved by the Office of Administrative Law and the USEPA.

In addition, the 303(d) list classifies the Salton Sea as impaired by nutrients, salt and selenium. No TMDL has been developed to date for the Salton Sea, although a nutrient TMDL is under development for the Salton Sea that may impact the permitted discharges to tributaries to the Salton Sea. The nutrient TMDL for the Salton Sea is tentatively scheduled for completion in 2009. Monitoring for Ortho-phosphate (as Phosphorus) has been included for receiving water monitoring locations R-001 and R-002, to amend the Monitoring and Reporting Program of Board Order No. R7-2005-0021.

12. Board Order No. R7-2005-0021 established WQBELs for TDS. These WQBELs were based on receiving water quality objectives (WQOs) established in the Basin Plan that state that any discharge to the New River shall not cause the concentration of TDS in the surface water to exceed a maximum daily concentration of 4,500 mg/L and an annual average concentration of 4,000 mg/L. Board Order No. R7-2005-0021 included average annual and maximum daily effluent limitations for TDS. Due to the incorrect interpretation of the Basin Plan receiving water quality objectives for TDS as numeric effluent limitations, this Special Board Order replaces the numeric effluent limitations for TDS with a narrative effluent limitation and establishes a receiving water limitation for TDS to accurately apply the WQOs of the Basin Plan. The replacement of those numeric effluent limitations with a narrative effluent limitation and receiving water limitation for TDS does not violate the CWA's backsliding prohibition due to the exception contained in CWA section 402(o)(2)(B)(ii). This statutory provision states that a permit may be renewed, reissued, or modified to contain a less stringent effluent limitation applicable to a pollutant if "the Administrator determines that technical mistakes or mistaken interpretations of law were made in issuing the permit" Furthermore, the effluent data were evaluated in conducting a Reasonable Potential Analysis (RPA) to determine whether TDS would be discharged at a level that would have the reasonable potential to cause or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality. The discharge does not demonstrate the reasonable potential to exceed water quality objectives for TDS. Therefore, TDS WQBELs are not required for the discharge. Corresponding to the application of receiving water limits for TDS, monitoring requirements have been established in this amendment for TDS at receiving water monitoring locations R-001 and R-002.
13. Board Order No. R7-2005-0021 established WQBELs for free cyanide. These limitations were based on numeric freshwater aquatic life criteria in accordance with the CTR and the National Toxics Rule (NTR) (40 CFR 131.36). The NTR specifies the water quality criterion for cyanide is expressed as free cyanide. The term "cyanide" generally refers to three classification of cyanide including total cyanide, available cyanide and free cyanide. Free cyanide refers to the sum of cyanide ion (CN⁻) and hydrogen cyanide (HCN); both forms are highly toxic to humans and aquatic life if ingested. Available cyanide includes the sum of free cyanide as well as weak acid dissociable (WAD) cyanide. Where WAD cyanide includes weak and moderately strong metal-cyanide compounds and complexes that decompose at varying rates and are generally thought to be less toxic than free cyanide as the decomposition releases cyanide at lower concentrations. Total cyanide includes the sum of free cyanide, available cyanide and the sum of strong metal-cyanide complexes, where strong metal-cyanide complexes are relatively non-toxic cyanide complexes. The presence of sulfite, thiosulfate, cyanate, thiocyanate, ammonia, nitrate and metals such as copper, iron, nickel and zinc in wastewater matrices may result in analysis interferences. The reactivity of cyanide, cyanide related compounds and complexes, and wastewater matrices, may result in inaccurate results producing both positive and negative bias. Acceptable methods to measure compliance for the cyanide

effluent limitation shall be measured using non-distillation analytical methods. This Special Order shall amend the monitoring and reporting requirements for free cyanide. The Discharger shall use non-distillation analysis methods for available cyanide, such as USEPA OIA-1677 or ASTM D6888-04 to measure compliance with the free cyanide effluent limitation.

- B. Facility Description.** The City of Brawley owns and operates the wastewater collection, treatment and disposal system (hereinafter referred to as facility) and provides sewerage service to the City of Brawley. The WWTP has a treatment capacity of 5.9 million gallons per day (MGD) and is located in the SW1/4 of Section 15, T13S, R14E, SBB&M.
- C. California Environmental Quality Act (CEQA).** This action to amend an NPDES permit is exempt from the provisions of Chapter 3 of CEQA (commencing with Section 21100) of Division 13 of the California Public Resources Code in accordance with Section 13389 of the CWC.
- D. Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations (see Attachment A of this Order for full details on Public Participation).
- E. Consideration of Public Comment.** The Regional Water Board, in a public hearing, heard and considered all comments pertaining to the discharge.
- F. Anti-degradation Policy.** 40 CFR Section 131.12 requires that state water quality standards include an anti-degradation policy consistent with the federal policy. To comply with this federal requirement, the State Water Board established California's anti-degradation policy in State Water Board Resolution No. 68-16, titled "Policy with Respect to Maintaining High Quality Waters of the State." Resolution No. 68-16 incorporates the federal anti-degradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires discharges to waters of the State be regulated to achieve the "highest water quality consistent with maximum benefit to the people of the State." It also establishes the intent that where waters of the State are of higher quality than that required by state policies, including Water Quality Control Plans, such higher quality "shall be maintained to the maximum extent possible" unless it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in plans and policies (e.g., violation of any water quality objective). The discharge is also required to meet waste discharge requirements that result in the best practicable treatment or control necessary to assure that pollution or nuisance will not occur, and that the highest water quality consistent with maximum benefit to the people will be maintained.

The source water for the City of Brawley and the entire Imperial Valley is the Colorado River. Average annual precipitation in the Imperial Valley is insignificant (approximately 2 inches/year). Therefore, the New River is an effluent-dominated surface water that carries discharges from wastewater treatment plants (WWTPs); agricultural returns flows from approximately 30 Imperial Valley Drains that discharge tilewater and tailwater from farmlands; occasional operational spills of irrigation water from adjacent farmlands; and, wastes from Mexicali, Mexico. The wastes from Mexico include agricultural runoff (tailwater), partially treated and untreated municipal and industrial wastewater, stormwater, and urban runoff from the Mexicali Valley. The wastes from Mexico contain pollutants (e.g., pathogens, trash, VOCs, pesticides, nutrients, raw sewage, BOD and metals) that impair the river's beneficial

uses. Tailwater is irrigation water that does not percolate into the soil, and exits the lower end of the field into the drain. Tailwater tends to erode fields and thus acquire silt and sediments as it crosses and exits a field. Tilewater is water that has percolated through the soil, but is not absorbed by crops. Tilewater flushes salts from the soil. This highly saline water accumulates in tile lines beneath the fields, wherein it is transported to drains by gravity flow or a sump system. Consequently, "background" water quality in the New River is difficult to establish for the purpose of conducting a typical antidegradation analysis. It is likely that the New River has historically contained "background" water from farmland¹ and Mexico that contains pollutants at concentrations that violate certain Basin Plan water quality objectives for those pollutants, in particular, pesticides, silt/sediment², VOCs, nutrients, pathogens and selenium. The nutrients (e.g., phosphorous) discharged into the drains and New River contribute to the nutrient impairment of the Salton Sea.

The discharge from the WWTP contains conventional pollutants (BOD, TSS, fecal coliform bacteria and pH) that are controlled through best practicable control technology currently available (BPT) and best available technology economically achievable (BCT) to prevent exceedances of the receiving water quality objectives for those pollutants and prevent adverse impacts on the REC-I and REC-II beneficial uses of the New River. The discharge also contains TDS, but at concentrations significantly below the 4000 mg/L TDS WQO for the receiving water. Copper, cyanide, lead and selenium have been measured in the discharge effluent from the treatment facility at concentrations above the numeric criteria for priority toxic pollutants for the State of California. These toxic pollutants are being controlled through WQBELs derived from water quality criteria established in the California Toxics Rule (CTR). The established WQBELs for copper, cyanide, lead and selenium prevent adverse impacts of the beneficial uses of the river and ensure compliance with the Basin Plan. Board Order No. R7-2005-0021 established interim effluent limitations for these priority pollutants that are effective from June 29, 2005 to May 18, 2010 and final WQBELs become effective thereafter. Nevertheless, the BOD, TSS, fecal coliform bacteria, pH, copper, cyanide, lead and selenium are likely to lower water quality in the receiving water (i.e., cause degradation). For conventional pollutants, including BOD, TSS, fecal coliform and pH, this degradation is restricted to pollutants associated with domestic wastewater, is localized and will not result in water quality less than prescribed in the Basin Plan. For toxic pollutants, including copper, cyanide, lead and selenium, this degradation will not be significant once controlled and will not result in water quality less than prescribed in the Basin Plan.

The discharge from the WWTP as permitted herein reflects best practicable treatment and control (BPTC) for the subject wastewater. The control is intended to assure that the discharge does not create a condition of pollution or nuisance and that the highest "background" water quality as defined above will be maintained. The WWTP incorporates:

- a. technology for equivalent to secondary treated domestic wastewater;
- b. effluent disinfection;
- c. sludge handling facilities;
- d. an operation and maintenance manual;

¹ The agricultural return flows, however, are essentially free of BOD and fecal coliform bacteria and have pH well within the receiving water quality objective of 6.0 to 9.0 pH Units.

² Silt/sediment can be measured in terms of TSS.

- e. staffing to assure proper operation and maintenance; and
- f. standby emergency power generator of sufficient size to operate the necessary treatment units during periods of loss of commercial power.

The discharge is necessary to accommodate economic development in the area and essential public services to the City of Brawley, which are an important benefit to the State. Based on the foregoing, the discharge as permitted herein is consistent with Resolution No. 68-16.

IT IS HEREBY ORDERED, that Board Order No. R7-2005-0021 is amended in the manner specified below upon the effective date of this Special Board Order, and, in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA), and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Special Board Order as well as with those portions of Board Order No. R7-2005-0021 that were not amended by this Special Board Order:

1. Page 9, IV.A.1, Final Effluent Limitations for Discharge Point 001. Replace table 1.a. with the following table:

Constituent	Units	Effluent Limitations			
		Average Monthly	Average Weekly	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand (BOD 5-day 20 °C)	mg/L	45	65		
	lbs/day ¹	2,200	3,200		
Total Suspended Solids (TSS)	mg/L	45	65		
	lbs/day ¹	2,200	3,200		
Flow	MGD	5.9			
Hydrogen ion (pH)	standard units			6.0	9.0

¹ Based on a flow of 5.9 MGD

2. Page 10, IV.A.1, Final Effluent Limitations for Discharge Point 001. Replace table 1.b. with the following table:

Constituent	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand (BOD 5-day 20 °C)	mg/L	45	65			
	lbs/day ¹	2,200	3,200			
Total Suspended Solids (TSS)	mg/L	45	65			
	lbs/day ¹	2,200	3,200			
Total Ammonia as Nitrogen	mg/L	1.1		12		
	lbs/day ¹	54		590		
Flow	MGD	5.9				
Hydrogen ion (pH)	standard units				6.0	9.0

¹ Based on a flow of 5.9 MGD

3. Page 11, IV.A.1, Final Effluent Limitations for Discharge Point 001. Replace table 1.c. with the following table:

Constituent	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Copper ¹	µg/L	25	50
	lbs/day	1.2	2.5
Cyanide ²	µg/L	4.3	8.5
	lbs/day	0.21	0.42
Lead ¹	µg/L	15	31
	lbs/day	0.74	1.5
Selenium ¹	µg/L	4.1	8.2
	lbs/day	0.20	0.40

¹ In conformance with 40 CFR 122.45(c), analyses to determine compliance with effluent limitations for metals shall be conducted using total recoverable methods.

² Expressed as free cyanide. Non-distillation analysis methods for available cyanide, such as USEPA OIA-1677 or ASTM D6888-04, shall be used to measure compliance with the free cyanide effluent limitation.

4. Page 11, IV.A.1, Final Effluent Limitations for Discharge Point 001. Replace 1.e. with the following:

e. Bacteria: The bacterial density in the wastewater effluent discharged to the New River shall not exceed the following values, as measured by the following bacterial indicators:

- i. **E. Coli.** The geometric mean bacterial density (based on a minimum of not less than five samples equally spaced over a 30-day period) shall not exceed a Most Probable Number (MPN) of 126 MPN per 100 milliliters, nor shall any sample exceed the maximum allowable bacterial density of 400 MPN per 100 milliliters.
- ii. **Enterococci.** The geometric mean bacterial density (based on a minimum of not less than five samples equally spaced over a 30-day period) shall not exceed a Most Probable Number (MPN) of 33 MPN per 100 milliliters, nor shall any sample exceed the maximum allowable bacterial density of 100 MPN per 100 milliliters.
- iii. **Fecal Coliform.** The geometric mean bacterial density (based on a minimum of not less than five samples equally spaced over a 30-day period) shall not exceed a Most Probable Number (MPN) of 200 MPN per 100 milliliters, nor shall more than ten percent of the total samples during any 30-day period exceed 400 MPN per 100 milliliters.”

5. Page 11, IV.A.1, Final Effluent Limitations for Discharge Point 001. Replace 1.f. with the following sentence:

f. Discharges of wastes or wastewater shall not increase the total dissolved solids content of receiving waters, unless it can be demonstrated to the satisfaction of the Regional Water Board that such an increase in total dissolved solids does not adversely affect beneficial uses of receiving waters.”

6. Page 12, IV.A.2, Interim Effluent Limitations for Discharge Point 001. Replace table 2.a. with the following table:

Constituent	Units	Interim Effluent Limitations	
		Average Monthly	Maximum Daily
Copper ¹	µg/L	79	79
	lbs/day	3.9	3.9
Cyanide ²	µg/L	76	76
	lbs/day	3.7	3.7
Lead ¹	µg/L	180	180
	lbs/day	8.9	8.9
Selenium ¹	µg/L	5.0	8.2
	lbs/day	0.25	0.40

¹ In conformance with 40 CFR 122.45(c), analyses to determine compliance with effluent limitations for metals shall be conducted using total recoverable methods.

² Expressed as free cyanide. Non-distillation analysis methods for available cyanide, such as USEPA OIA-1677 or ASTM D6888-04, shall be used to measure compliance with the free cyanide effluent limitation.

7. Page 13, V.A. Surface Water Limitations. Add new receiving water limitation V.A.1.m as follows:

"m. Result in the concentration of total dissolved solids in the New River to exceed an annual average concentration of 4,000 mg/L or an instantaneous maximum concentration of 4,500 mg/L."

8. Page 23, VII. Compliance Determination. Add new compliance determination language VII.G as follows:

"G. Bacterial Effluent Limitations.

Compliance with the bacterial effluent limitations established in section III.A.1.e. of this Order shall be determined as follows:

1. If the calculated geometric mean bacterial concentrations for *E. coli*, enterococci, or fecal coliform exceed the 30-day geometric mean effluent limitations summarized in the Limitations and Discharge Requirements section III.A.1.c. of this Order, this will represent a single violation of the water quality-based effluent limitation for bacteria and the Discharger will be considered out of compliance for the month in which the samples were collected.
2. If the bacterial concentrations for *E. coli* or enterococci (when both samples are collected on the same day) exceed the maximum bacterial densities summarized in the Limitations and Discharge Requirements section, III.A.1.c. of this Order, this will represent a single violation of the water quality-based effluent limitation for bacteria and the Discharger will be considered out of compliance for the day in which the samples were collected.
3. If more than ten percent of the bacterial concentrations for fecal coliform exceed 400 MPN per 100 milliliters, this will represent a single violation of the water quality-based effluent limitation for bacteria and the Discharger will be considered out of compliance for the month in which the samples were collected."

9. Monitoring and Reporting Program, Page E-2, IV.A.1. Monitoring Location M-001. Add the following effluent monitoring requirements for fecal coliform and enterococci to the table as follows:

Constituent	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
Enterococci	MPN/100 mL	Grab	5/Month ¹	²
Fecal coliform	MPN/100 mL	Grab	5/Month ¹	²

¹ Five samples equally spaced over a 30-day period with a minimum of one sample per week.

² The collection, preservation and holding times of all samples shall be in accordance with the test procedures under 40 CFR 136 (revised as of May 14, 1999), promulgated by the United States Environmental Protection Agency (USEPA), unless otherwise specified in this MRP.

10. Monitoring and Reporting Program, Page E-7, VIII.A.1. Monitoring Location R-001 Upstream Receiving Water Sampling Point. Add the following receiving water monitoring requirement for orthophosphate to the table as follows:

Constituent	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
Orthophosphate	mg/L	Grab	1x/Month	¹

¹ Pollutants shall be analyzed using the analytical methods described in 40 CFR sections 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.

11. Monitoring and Reporting Program, Page E-8, VIII.B.1. Monitoring Location R-002 Downstream Receiving Water Sampling Point. Add the following receiving water monitoring requirement for orthophosphate to the table as follows:

Constituent	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
Orthophosphate	mg/L	Grab	1x/Month	¹

¹ Pollutants shall be analyzed using the analytical methods described in 40 CFR sections 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.

12. Fact Sheet, Page F-12, IV.B.2.c. Applicable Technology-Based Effluent Limitations. Replace table for 2.c. with the following table:

Constituents	Basis for Limitations
Biochemical Oxygen Demand (BOD ₅)	Discharges to waters that support aquatic life that is dependent on oxygen. Organic matter in the discharge may consume oxygen as it breaks down.
Total Suspended Solids (TSS)	High levels of suspended solids can adversely impact aquatic habitat. Untreated or improperly treated wastewater can contain high amounts of suspended solids.
Hydrogen Ion (pH)	Hydrogen Ion (pH) is a measure of Hydrogen Ion concentration in the water. A range specified from 6 to 9 ensures suitability of biological life. This limitation has been adopted in the Basin Plan of the Region.
Total Dissolved Solids (TDS)	High levels of TDS can adversely impact aquatic life. A narrative limit for TDS has been adopted in the Basin Plan of the Region.
Toxicity	Toxicity testing ensures that the effluent does not contain metals, chemicals, pesticides, or other constituents in concentration toxic to aquatic life.

<i>Escherichia coli</i> (E. Coli), Enterococci, Fecal coliform	These limits are required by the Basin Plan for waters designated for water contact recreation (REC I) or noncontact water recreation (REC II) and by the New River Pathogen TMDL.
Flow	The design capacity of the treatment plant is 5.9 MGD.

Fact Sheet, Page F-14, IV.C.2. Applicable Beneficial Uses and Water Quality Criteria and Objectives. Replace Table F-3 with the following table:

CTR No.	Constituent	Selected Criteria	CTR/NTR Water Quality Criteria				
			Freshwater		Saltwater		Human Health for Consumption of:
			Acute	Chronic	Acute	Chronic	Organisms only
			µg/L	µg/L	µg/L	µg/L	µg/L
2	Arsenic	150	340	150	n/a	n/a	
5a	Chromium (III)	644	5,400	644			
6	Copper	30.5	51.7	30.5	n/a	n/a	
7	Lead	18.6	477	18.6	n/a	n/a	
9	Nickel	169	1520	169	n/a	n/a	4,600
10	Selenium	5.0		5.0	n/a	n/a	
13	Zinc	388	388	388	n/a	n/a	
14	Cyanide	5.2	22	5.2			220,000
68	Bis(2-Ethylhexyl)Phthalate	5.9					5.9

13. Fact Sheet, Page F-15, IV.C.3. Determining the Need for WQBELs. Replace Table F-4 with the following table:

CTR No.	Priority Pollutant	Applicable Water Quality Criteria (C)	Maximum Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result – Limit Required?	Reason
		µg/L	µg/L	µg/L		
2	Arsenic	150	ND	11	No	MEC and B < C
5a	Chromium (III)	644	28	21	No	MEC and B < C
6	Copper	30.5	120	22	Yes	MEC > C
7	Lead	18.6	266	11	Yes	MEC > C
9	Nickel	169	ND	8	No	MEC and B < C
10	Selenium	5.0	5	19	Yes	MEC = C & B > C
13	Zinc	388	53	109	No	MEC and B > C
14	Cyanide	5.2	70	50	Yes	MEC and B > C
68	Bis(2-Ethylhexyl)Phthalate	5.9	4.9	ND	No	MEC and B < C

14. Fact Sheet, Page F-18, IV.C.5.a. WQBEL based on Basin Plan Objectives. Replace 5.a. with the following text:

“a. Total Dissolved Solids (TDS). Discharges of wastes or wastewater shall not increase the total dissolved solids content of receiving waters, unless it can be demonstrated to the satisfaction of the Regional Water Board that such an increase in total dissolved solids does not adversely affect beneficial uses of receiving waters.”

15. Fact Sheet, Page F-18, IV.C.5.b. WQBEL based on Basin Plan Objectives. Replace 5.b. with the following section:

“b. The Basin Plan states that any discharge to a water body with a REC1 designated use shall not have bacterial densities in excess of the following:

- i. **E Coli.** The geometric mean bacterial density (based on a minimum of not less than five samples equally spaced over a 30-day period) shall not exceed a Most Probable Number (MPN) of 126 MPN per 100 milliliters, nor shall any sample exceed the maximum allowable bacterial density of 400 MPN per 100 milliliters.
- ii. **Enterococci.** The geometric mean bacterial density (based on a minimum of not less than five samples equally spaced over a 30-day period) shall not exceed a Most Probable Number (MPN) of 33 MPN per 100 milliliters, nor shall any sample exceed the maximum allowable bacterial density of 100 MPN per 100 milliliters.
- iii. **Fecal Coliform.** The geometric mean bacterial density (based on a minimum of not less than five samples equally spaced over a 30-day period) shall not exceed a Most Probable Number (MPN) of 200 MPN per 100 milliliters, nor shall more than ten percent of the total samples during any 30-day period exceed 400 MPN per 100 milliliters.

Effluent limitations for *E.coli*, enterococci and fecal coliform are incorporated in this Order. The bacterial indicators of *E. coli*, enterococci and fecal coliform are used to estimate the presence of pathogens in the wastewater effluent discharged to Discharge Point 001. Effluent limitations for *E. coli*, enterococci and fecal coliform shall be used as indicators to determine the effectiveness of the municipal wastewater treatment facilities disinfection system.”

16. Fact Sheet, Page F-19, IV.C.6. Final WQBELs. Replace Table F-5 with the following table:

Constituent	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Total Ammonia as N	mg/L	1.1	12
	lbs/day	54	590
Copper ¹	µg/L	25	50
	lbs/day	1.2	2.5
Lead ¹	µg/L	15	31
	lbs/day	0.74	1.5
Selenium ¹	µg/L	4.1	8.2
	lbs/day	0.20	0.40
Cyanide ²	µg/L	4.3	8.5
	lbs/day	0.21	0.42

¹ In conformance with 40 CFR 122.45(c), analyses to determine compliance with effluent limitations for metals shall be conducted using total recoverable methods.

² Expressed as free cyanide. Non-distillation analysis methods for available cyanide, such as USEPA OIA-1677 or ASTM D6888-04, shall be used to measure compliance with the free cyanide effluent limitation.

17. Fact Sheet, Page F-21, IV.D. Final Effluent Limitations. Replace Table F-6 with the following table:

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	MGD	5.9	---	---	---	---
Biochemical Oxygen Demand (BOD) (5 day @ 20 Deg. C)	mg/L	45	65	---	---	---
	lbs/day ¹	2,200	3,200	---	---	---
Total Suspended Solids (TSS)	mg/L	45	65	---	---	---
	lbs/day ¹	2,200	3,200	---	---	---
Removal Efficiency for BOD and TSS	%	65	---	---	---	---
pH	standard units	---	---	---	6.0	9.0
<i>Escherichia coli</i> (E. Coli)	MPN	126 ²	---	---	---	400
Enterococci	MPN	33 ²	---	---	---	100
Fecal Coliform	MPN	200 ²	---	---	---	400 ³
Total Ammonia as Nitrogen	mg/L	1.1	---	12	---	---
	lbs/day ¹	54	---	590	---	---
Copper ^{4,5}	µg/L	25	---	50	---	---
	lbs/day ¹	1.2	---	2.5	---	---
Lead ^{4,5}	µg/L	15	---	31	---	---
	lbs/day ¹	0.74	---	1.5	---	---
Selenium ^{4,5}	µg/L	4.1	---	8.2	---	---
	lbs/day ¹	0.20	---	0.40	---	---
Cyanide ^{5,6}	µg/L	4.3	---	8.5	---	---
	lbs/day ¹	0.21	---	0.42	---	---

¹ Based on a flow of 5.9 MGD

² Log mean based on a minimum of not less than five samples for any 30-day period.

³ No more than ten percent of the total fecal coliform samples collected during any 30-day period shall exceed 400 MPN per 100 milliliters.

⁴ Limitations are applicable after May 18, 2010. The interim limitations described in section VIII below are applicable from June 29, 2005 to May 18, 2010.

⁵ In conformance with 40 CFR 122.45(c), analyses to determine compliance with effluent limitations for metals shall be conducted using total recoverable methods.

⁶ Expressed as free cyanide. Non-distillation analysis methods for available cyanide, such as USEPA OIA-1677 or ASTM D6888-04, shall be used to measure compliance with the free cyanide effluent limitation.

18. Fact Sheet, Page F-22, IV.E. Interim Effluent Limitations. Replace the entire section with the following:

“E. Interim Effluent Limitations

The discharger may not be able to consistently comply with the new effluent limitations for copper, lead, selenium and free cyanide. Therefore, interim limits have been set as follows:

1. The governing Water Quality Criteria (WQC) for copper is 30.5 µg/L, the freshwater aquatic life criteria contained in the CTR. Copper has reasonable potential to exceed water quality objectives, and final Water Quality Based Effluent Limitations

(WQBELs) are required. The WQBELs calculated pursuant to State Implementation Policy (SIP) procedures are 25 µg/L monthly average and 50 µg/L daily maximum. The Discharger indicated in its April 8, 2005 Feasibility Study that it is infeasible to comply immediately with the WQBELs. Therefore, pursuant to the provisions of the SIP, an interim effluent limit for copper is required. The previous permit did not contain an effluent limit for copper. The interim effluent limit is based on the 99th percentile of the reported daily maximum effluent data. The Discharger collected 19 samples with an observed mean of 17.3 ug/L and a standard deviation of 26.7 ug/L. The calculated interim average monthly effluent limit is 79 ug/L. This interim effluent limit is based on the best professional judgment of Regional Water Board staff.

2. The governing WQC for lead is 18.6 µg/L, the freshwater aquatic life criteria contained in the CTR. Lead has reasonable potential to exceed water quality objectives, and final WQBELs are required. The WQBELs calculated pursuant to SIP procedures are 15 µg/L monthly average and 31 µg/L daily maximum. The Discharger indicated in its April 8, 2005 Feasibility Study that it is infeasible to comply immediately with the WQBELs. Therefore, pursuant to the provisions of the SIP, an interim effluent limit for lead is required. The previous permit did not contain an effluent limit for lead. The interim effluent limit is based on the 99th percentile of the reported daily maximum effluent data. The Discharger collected 19 samples with an observed mean of 49.8 ug/L and a standard deviation of 56.0 ug/L. The calculated interim average monthly effluent limit is 180 ug/L. This interim effluent limit is based on the best professional judgment of Regional Water Board staff.
3. The governing WQC for selenium is 5.0 µg/L, the freshwater aquatic life criteria contained in the CTR. Selenium has reasonable potential to exceed water quality objectives, and final WQBELs are required. The WQBELs calculated pursuant to SIP procedures are 4.1 µg/L monthly average and 8.2 µg/L daily maximum. The Discharger indicated in its April 8, 2005 Feasibility Study that it is infeasible to comply immediately with the WQBELs. Therefore, pursuant to the provisions of the SIP, an interim effluent limit for selenium is required. The previous permit did not contain an effluent limit for selenium. The Discharger collected 6 of samples and it is not possible to statistically determine current plant performance based on 6 of data points. Therefore, the interim average monthly effluent limit is the MEC, 5.0 µg/L. The observed MEC was less than the proposed final maximum daily effluent limit (MDEL) pursuant to the SIP therefore, the maximum daily effluent limit is 8.2 µg/L. This interim effluent limit is based on the best professional judgment of Regional Water Board staff.
4. The governing WQC for cyanide is 5.2 µg/L, the freshwater aquatic life criteria contained in the CTR. Cyanide has reasonable potential to exceed water quality objectives, and final WQBELs are required. The WQBELs calculated pursuant to SIP procedures are 4.3 µg/L monthly average and 8.5 µg/L daily maximum. The Discharger indicated in its April 8, 2005 Feasibility Study that it is infeasible to comply immediately with the WQBELs. Therefore, pursuant to the provisions of the SIP, an interim effluent limit for cyanide is required. The previous permit did not contain an effluent limit for cyanide. The interim effluent limit is based on the 99th percentile of the reported daily maximum effluent data. The Discharger collected 14 samples with an observed mean of 21.3 µg/L and a standard deviation of 23.4 µg/L. The calculated interim average monthly effluent limit is 76 µg/L. This interim effluent limit is based on the best professional judgment of Regional Water Board staff.”

Constituents	Unit	Date Effluent Limit Becomes Effective	Average Monthly Effluent Limit	Maximum Daily Effluent Limit
Copper (interim)	µg/L	June 29, 2005	79	79
Copper (final)	µg/L	May 18, 2010	25	50
Lead (interim)	µg/L	June 29, 2005	180	180
Lead (final)	µg/L	May 18, 2010	15	31
Selenium (interim)	µg/L	June 29, 2005	5.0	8.2
Selenium (final)	µg/L	May 18, 2010	4.1	8.2
Cyanide (interim)	µg/L	June 29, 2005	76	76
Cyanide (final)	µg/L	May 18, 2010	4.3	8.5

19. Attachment G, Page G-1, Summary Water Quality-Based Effluent Limit Calculations. Replace the table with the following:

Attachment G – Summary Water Quality-Based Effluent Limit Calculations

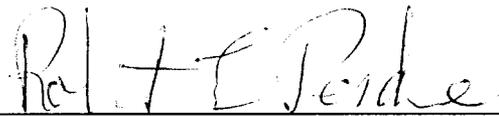
The water quality-based effluent limits developed for this Board Order are summarized below and were calculated as described in the methodology summarized in Attachment F, Fact Sheet and are contained in Section IV.A.1.c of this Order.

Priority Pollutant	Human Health Calculations			Aquatic Life Calculations											Selected Limits	
	Human Health			Freshwater												
	AMEL = ECA = C hh	MDEL/AMEL multiplier	MDEL hh	ECA acute = C acute	ECA acute multiplier	LTA acute	ECA chronic = C chronic	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aquatic life	MDEL multiplier 99	MDEL aquatic life	AMEL	MDEL
	ug/L		ug/L	ug/L		ug/L	ug/L		ug/L	ug/L		ug/L		ug/L	ug/L	ug/L
Copper	N/A	N/A	N/A	51.7	0.321	16.6	30.5	0.527	16.1	16.1	1.55	25.0	3.11	50.1	25	50
Lead	N/A	N/A	N/A	477	0.321	153.1	18.6	0.527	9.80	9.80	1.55	15.2	3.11	30.5	15	31
Selenium	N/A	N/A	N/A	N/A	N/A	N/A	5.00	0.527	2.64	2.64	1.55	4.09	3.11	8.21	4.1	8.2
Cyanide	220,000	2.01	441,000	22	0.321	7.06	5.2	0.527	2.74	2.74	1.55	4.26	3.11	8.54	4.3	8.5

Notes:

C = Water Quality Criteria
 hh = human health
 AMEL = Average monthly effluent limitation
 MDEL = Maximum daily effluent limitation
 ECA = Effluent concentration allowance
 LTA = Long-term average concentration

I, Robert E. Perdue, Executive Officer, do hereby certify the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on June 25, 2008.

Handwritten signature of Robert E. Perdue in cursive script.

ROBERT E. PERDUE, Executive Officer

ATTACHMENT A – PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, Colorado River Basin Region (Regional Water Board) is considering the amendment of Waste Discharge Requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for City of Brawley Wastewater Treatment Plant. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was published in the following newspapers: Desert Sun and Imperial Valley Press. In addition, copies of the proposed permit were sent to interested agencies and persons.

B. Written Comments

The Regional Water Board staff's determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments should be submitted either in person or by mail to the Executive Officer at the Regional Water Board at the address above on the cover page of this Order.

Comments made in reference to the Biological Assessment and USEPA's approval letter should be directed to:

Matthew Mitchell
USEPA
75 Hawthorne Street (WTR-5)
San Francisco, CA 94105

To be fully responded to by staff and considered by the Regional Water Board and USEPA, written comments should be received at the Regional Water Board and USEPA offices by 5:00 p.m. on May 12, 2008.

C. Public Hearing

The Regional Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: June 25, 2008
Time: 10:00 a.m.
Location: City Council Chambers
City of Indio
150 Civic Center Mall
Indio, CA 92201

Interested persons are invited to attend. At the public hearing, the Regional Water Board will take testimony pertinent to the discharge, WDRs, and permit. For accuracy of the record, however, a written copy of the proposed oral testimony to be given should be provided prior to or at the hearing.

Please be aware that dates and venues of the Regional Water Board's public meeting and hearing may change. The latest information concerning any scheduling changes can be found at the Regional Water Board's website: <http://www.waterboards.ca.gov/coloradoriver/>.

Any person who is disabled and requires special accommodations to participate in this public meeting and hearing, please contact Hilda Vasquez at (760) 776-8950 no later than ten (10) days before the scheduled event.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be submitted within thirty (30) days of the Regional Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
1001 I Street
P.O. Box 100
Sacramento, CA 95812-0100

E. Information and Copying

Information related to the discharge facility and this proposed amendment, including any comments received on the proposed amendment are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (760) 346-7491.

F. Register of Interested Persons

If you are interested in being placed on the mailing list for information regarding the WDRs and NPDES permit, please contact the Regional Water Board, reference this facility, and provide your name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this draft order should be directed to Kirk Larkin, Water Resources Control Engineer, at (760) 776-8964.